

ABSTRACT

A scheme for wireless local area networks provides multimedia extensions for high rate applications. Some of the main extensions provided are the following: The MAC header is extended to include the components for multimedia support. The network topology extensions include tighter definition of the PC, peer-peer connections during CFP, alternate PC and proxy PC. The Quality of Service (QoS) related extensions include the simplifying the operation during CFP, support of streams, stream priority, synchronization of TDM transmissions by devices during CFP, dynamic bandwidth management, channel protection using error control coding and negotiable retransmission parameters. By dynamically negotiating for the priority, bandwidth and the retransmission parameters for each stream separately, the latency control is achieved. There are also proposed extensions to the operation of DCF-only stations in order to better their inter-operation with multimedia capable devices.